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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,318	01/23/2004	Qin-Yin Tong	247830US-20 CONT	4983
22850 7590 07/16/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER GARCIA, JOANNIE A	
			ART UNIT 2823	PAPER NUMBER
			NOTIFICATION DATE 07/16/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/762,318

Applicant(s)

TONG ET AL

Examiner

Joannie A. Garcia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 138-175 and 177-295 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 138-175, 177-234, 236 and 260-290 is/are allowed.
- 6) ☒ Claim(s) 237-242, 251, 255 and 259 is/are rejected.
- 7) ☒ Claim(s) 243-246, 248-250, 252-254, 256-258 and 291-295 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 04-20-07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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Claims 247-250 are objected to because of the following informalities:

Claim 247 recites the limitation "first and second substrates" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 255 recites the limitation "first and second substrates" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 235, 237-242, 247, 251, 255, and 259, are rejected under 35 U.S.C. 102(b) as being anticipated by Farrens et al (U.S. Patent 6,180,496).

Farrens et al discloses a processing method, comprising exposing a first surface such as a substrate of a first element to a plasma (Column 6, lines 1-30), cleaning said surface after exposure to said plasma by removing contaminants from said surface by a dry process (Column 1, lines 20-31, Column 6, lines 15-21, and Column 7, lines 50-55), terminating said surface with a chemical species after said exposure to said plasma (Column 3, lines 30-35, and Column 6, lines 10-25), bonding said surface to a second surface such as a substrate of a second substrate after said terminating step (Column 6, lines 35-51), forming a first bonding layer on said first element, and performing said exposing, cleaning, and terminating on a surface of said first bonding layer, and forming a second bonding layer on said second element and performing said

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exposing, cleaning, and terminating on a surface of said second bonding layer (Column 1, lines 20-31, Column 3, lines 30-35, Column 6, lines 1-30, and Column 7, lines 50-55), obtaining a bond strength sufficient to permit at least one of grinding and polishing of one of said first and second elements (Column 6, lines 15-25), and heating said first and second surfaces to a temperature no more than about 200 degrees Celsius, enhancing bonding strength (Column 6, lines 10-25).

Claims 243-246, 248-250, 252-254, 256-258, and 291-295, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 138-175, 177-234, 236, and 260-290, are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joannie García whose telephone number is (571) 272-1861. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith, can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/George Fourson/
George Fourson
Primary Examiner
Art Unit 2823



JAG

July 5, 2007

GFourson
Primary Examiner